SEQUENCE LISTING

<110> SOULARD, PATRICIA

<120> POLYPEPTIDES EXHIBITING PDE7 ACTIVITY AND THEIR USE FOR
SELECTING COMPOUNDS WHICH INHIBIT PDE7 ENZYME ACTIVITY

<130> A0000281US

<140> 09/966781
<141> 2001-09-28

<150> EP004026837
<151> 2000-09-28

<160> 35

<170> PatentIn Ver. 2.1

<210> 1
<211> 426
<212> PRT
<213> Homo sapiens

<400> 1

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Ser Arg Ala Gly Phe Glu Ser Glu Arg Arg Gly Ser His Pro Tyr Ile
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Asp Phe Arg Ile Phe His Ser Gln Ser Glu Ile Glu Val Ser Val Ser
            35                  40                  45

Ala Arg Asn Ile Arg Arg Leu Leu Ser Phe Gln Arg Tyr Leu Arg Ser
        50                  55                  60

Ser Arg Phe Phe Arg Gly Thr Ala Val Ser Asn Ser Leu Asn Ile Leu
65                  70                  75                  80

Asp Asp Asp Tyr Asn Gly Gln Ala Lys Cys Met Leu Glu Lys Val Gly
                85                  90                  95

Asn Trp Asn Phe Asp Ile Phe Leu Phe Asp Arg Leu Thr Asn Gly Asn
                100                 105                 110

Ser Leu Val Ser Leu Thr Phe His Leu Phe Ser Leu His Gly Leu Ile
                115                 120                 125
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Glu Tyr Phe His Leu Asp Met Met Lys Leu Arg Arg Phe Leu Val Met
    130   135   140

Ile Gln Glu Asp Tyr His Ser Gln Asn Pro Tyr His Asn Ala Val His
145   150   155   160

Ala Ala Asp Val Thr Gln Ala Met His Cys Tyr Leu Lys Glu Pro Lys
                165   170   175

Leu Ala Asn Ser Val Thr Pro Trp Asp Ile Leu Leu Ser Leu Ile Ala
            180   185   190

Ala Ala Thr His Asp Leu Asp His Pro Gly Val Asn Gln Pro Phe Leu
            195   200   205

Ile Lys Thr Asn His Tyr Leu Ala Thr Leu Tyr Lys Asn Thr Ser Val
    210   215   220

Leu Glu Asn His His Trp Arg Ser Ala Val Gly Leu Leu Arg Glu Ser
225   230   235   240

Gly Leu Phe Ser His Leu Pro Leu Glu Ser Arg Gln Gln Met Glu Thr
                245   250   255

Gln Ile Gly Ala Leu Ile Leu Ala Thr Asp Ile Ser Arg Gln Asn Glu
            260   265   270

Tyr Leu Ser Leu Phe Arg Ser His Leu Asp Arg Gly Asp Leu Cys Leu
            275   280   285

Glu Asp Thr Arg His Arg His Leu Val Leu Gln Met Ala Leu Lys Cys
    290   295   300

Ala Asp Ile Cys Asn Pro Cys Arg Thr Trp Glu Leu Ser Lys Gln Trp
305   310   315   320

Ser Glu Lys Val Thr Glu Glu Phe Phe His Gln Gly Asp Ile Glu Lys
                325   330   335

Lys Tyr His Leu Gly Val Ser Pro Leu Cys Asp Arg His Thr Glu Ser
            340   345   350

Ile Ala Asn Ile Gln Ile Gly Phe Met Thr Tyr Leu Val Glu Pro Leu
            355   360   365

Phe Thr Glu Trp Ala Arg Phe Ser Asn Thr Arg Leu Ser Gln Thr Met
    370   375   380

Leu Gly His Val Gly Leu Asn Lys Ala Ser Trp Lys Gly Leu Gln Arg
385   390   395   400

Glu Gln Ser Ser Ser Glu Asp Thr Asp Ala Ala Phe Glu Leu Asn Ser
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<212> PRT
<213> Mus sp.

<400> 2
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            20   25   30

Asp Phe Arg Ile Phe His Ser Gln Ser Asp Ile Glu Ala Ser Val Ser
            35   40   45

Ala Arg Asn Ile Arg Arg Leu Leu Ser Phe Gln Arg Tyr Leu Arg Ser
        50   55   60

Ser Arg Val Phe Arg Gly Ala Thr Val Cys Ser Ser Leu Asp Ile Leu
    65   70   75   80

Asp Glu Asp Tyr Asn Gly Gln Ala Lys Cys Met Leu Glu Lys Val Gly
                85   90   95

Asn Trp Asn Phe Asp Ile Phe Leu Phe Asp Arg Leu Thr Asn Gly Asn
            100   105   110

Ser Leu Val Ser Leu Thr Phe His Leu Phe Ser Leu His Gly Leu Ile
            115   120   125

Glu Tyr Phe His Leu Asp Met Val Lys Leu Arg Arg Phe Leu Val Met
    130   135   140

Ile Gln Glu Asp Tyr His Ser Gln Asn Pro Tyr His Asn Ala Val His
145   150   155   160

Ala Ala Asp Val Thr Gln Ala Met His Cys Tyr Leu Lys Glu Pro Lys

3

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    Leu Ala Ser Ser Val Thr Pro Trp Asp Ile Leu Leu Ser Leu Ile Ala
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    Ala Ala Thr His Asp Leu Asp His Pro Gly Val Asn Gln Pro Phe Leu
                195                     200                     205

    Ile Lys Thr Asn His Tyr Leu Ala Thr Leu Tyr Lys Asn Ser Ser Val
            210                     215                     220

    Leu Glu Asn His His Trp Arg Ser Ala Val Gly Leu Leu Arg Glu Ser
    225                     230                     235                     240

    Gly Leu Phe Ser His Leu Pro Leu Glu Ser Arg Gln Glu Met Glu Ala
                    245                     250                     255

    Gln Ile Gly Ala Leu Ile Leu Ala Thr Asp Ile Ser Arg Gln Asn Glu
                260                     265                     270

    Tyr Leu Ser Leu Phe Arg Ser His Leu Asp Lys Gly Asp Leu His Leu
                275                     280                     285

    Asp Asp Gly Arg His Arg His Leu Val Leu Gln Met Ala Leu Lys Cys
                290                     295                     300

    Ala Asp Ile Cys Asn Pro Cys Arg Asn Trp Glu Leu Ser Lys Gln Trp
    305                     310                     315                     320

    Ser Glu Lys Val Thr Glu Glu Phe Phe His Gln Gly Asp Ile Glu Lys
                    325                     330                     335

    Lys Tyr His Leu Gly Val Ser Pro Leu Cys Asp Arg Gln Thr Glu Ser
                340                     345                     350

    Ile Ala Asn Ile Gln Ile Gly Phe Met Thr Tyr Leu Val Glu Pro Leu
                355                     360                     365

    Phe Thr Glu Trp Ala Arg Phe Ser Ala Thr Arg Leu Ser Gln Thr Met
    370                     375                     380

    Leu Gly His Val Gly Leu Asn Lys Ala Ser Trp Lys Gly Leu Gln Arg
    385                     390                     395                     400

    Gln Gln Pro Ser Ser Glu Asp Ala Asn Ala Ala Phe Glu Leu Asn Ser
                    405                     410                     415

    Gln Leu Leu Thr Gln Glu Asn Arg Leu Ser

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<211> 426
<212> PRT
<213> Rattus sp.

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Ser Arg Ala Gly Phe Glu Thr Glu Arg Arg Gly Ser His Pro Tyr Ile
                20   25   30

Asp Phe Arg Ile Phe His Ala Gln Ser Glu Ile Glu Ala Ser Val Ser
            35   40   45

Ala Arg Asn Ile Arg Arg Leu Leu Ser Phe Gln Arg Tyr Leu Arg Ser
        50   55   60

Ser Arg Phe Phe Arg Gly Ala Thr Val Cys Arg Ser Leu Asn Ile Leu
65   70   75   80

Asp Glu Asp Tyr Asn Gly Gln Ala Lys Cys Met Leu Glu Lys Val Gly
                85   90   95

Asn Trp Asn Phe Asp Ile Phe Leu Phe Asp Arg Leu Thr Asn Gly Asn
                100   105   110

Ser Leu Val Ser Leu Thr Phe His Leu Phe Ser Leu His Gly Leu Ile
            115   120   125

Glu Tyr Phe His Leu Asp Met Val Lys Leu Arg Arg Phe Leu Val Met
        130   135   140

Ile Gln Glu Asp Tyr His Ser Gln Asn Pro Tyr His Asn Ala Val His
145   150   155   160

Ala Ala Asp Val Thr Gln Ala Met His Cys Tyr Leu Lys Glu Pro Lys
                165   170   175

Leu Ala Asn Ser Val Thr Pro Trp Asp Ile Leu Leu Ser Leu Ile Ala
                180   185   190

Ala Ala Thr His Asp Leu Asp His Pro Gly Val Asn Gln Pro Phe Leu
        195   200   205

5

Ile Lys Thr Asn His Tyr Leu Ala Thr Leu Tyr Lys Asn Thr Ser Val
210   215   220

Leu Glu Asn His His Trp Arg Ser Ala Val Gly Leu Leu Arg Glu Ser
225   230   235   240

Gly Leu Phe Ser His Leu Pro Leu Glu Ser Arg His Glu Met Glu Ala
                245   250   255

Gln Ile Gly Ala Leu Ile Leu Ala Thr Asp Ile Ser Arg Gln Asn Glu
            260   265   270

Tyr Leu Ser Leu Phe Arg Ser His Leu Asp Lys Gly Asp Leu His Leu
            275   280   285

Asp Asp Gly Arg His Arg His Leu Val Leu Gln Met Ala Leu Lys Cys
        290   295   300

Ala Asp Ile Cys Asn Pro Cys Arg Asn Trp Glu Leu Ser Lys Gln Trp
305   310   315   320

Ser Glu Lys Val Thr Glu Glu Phe Phe His Gln Gly Asp Ile Glu Lys
                325   330   335

Lys Tyr His Leu Gly Val Ser Pro Leu Cys Asp Arg Gln Thr Glu Ser
            340   345   350

Ile Ala Asn Ile Gln Ile Gly Phe Met Thr Tyr Leu Gln Glu Pro Leu
            355   360   365

Phe Thr Glu Trp Ala Arg Phe Ser Asp Thr Arg Leu Ser Gln Thr Met
    370   375   380

Leu Gly His Val Gly Leu Asn Lys Ala Ser Trp Lys Gly Leu Gln Arg
385   390   395   400

Gln Gln Pro Ser Ser Glu Asp Ala Ser Ala Ala Phe Glu Leu Asn Ser
            405   410   415

Gln Leu Leu Thr Gln Glu Asn Arg Leu Ser
            420   425

<210> 4
<211> 1281
<212> DNA
<213> Homo sapiens

6

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gatatctttc tatttgatag actaacaaat ggaaatagtc tagtaagctt aacctttcat 360
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<210> 5
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<212> DNA
<213> Mus sp.

<400> 5

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tatcttagat cttcacgctt ttttcgtggt actgcggttt caaattccct aaacatttta 240
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gatatctttc tatttgatag actaacaaat ggaaatagtc tagtaagctt aacctttcat 360
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<210> 6
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<212> DNA
<213> Rattus sp.

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<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

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8

<210> 8
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

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<210> 9
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Probe

<400> 9
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<210> 10
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Probe

<400> 10
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<210> 11
<211> 3165
<212> DNA
<213> Mus sp.

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10

<210> 12
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 12
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<210> 13
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 13
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<210> 14
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 14
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<210> 15
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 15
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<210> 16
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 16
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<210> 17
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 17
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<210> 18
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 18
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<210> 19
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 19
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12

<210> 20
<211> 34
<212> DNA
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<220>
<223> Description of Artificial Sequence:Primer

<400> 20
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<210> 21
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<212> DNA
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<220>
<223> Description of Artificial Sequence:Primer

<400> 21
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<210> 22
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Primer

<400> 22
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<210> 23
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13

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19

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